

SPECIFICATION

Please replace the paragraph starting on page 14, line 27 to page 15, line 13 with the following replacement paragraph:

The optical reference source 121 generates a plurality of optical reference signals S_{Refn} . Each of the signals S_{Refn} is coupled to a respective photodiode in the photodiode array 126 via the reference beam fiber optic array link 123. The optical reference signals S_{Refn} are distinguished from each other by the index n . In this case, the reference signals S_{Refn} generated by the optical reference source 121 have incremental frequencies $f_{\text{Refn}} = f_c + nf_s$ relative to index n and have an incremental value substantially equal to the AOM's 107 shift frequency f_s . A constant center frequency f_c is a component of each of the reference frequencies f_{Refn} . The reference source signals S_{Refn} are combined with the demultiplexed transmission signals S_{DTn} with respect to the index n at the photodiode array 126. Each photodiode of the photodiode array 126 detects the interference between one of the optical reference signals S_{Refn} and one of the demultiplexed transmission signals S_{DTn} . Each of the photodiodes generates a corresponding radiative transmit signal S_{TXn} , which in this case is an RF transmit signal or an intermediate-frequency signal. The radiative transmit signal S_{TXn} has a differential frequency $f_d = |f_c - f_o|$. The value of the differential frequency f_d may change with respect to changes in the signal frequency f_o . In this case, the reference source 121 may comprise an array of lasers (not shown) or a Fabry-Perot laser (not shown) that outputs a plurality of modes corresponding to the frequency shifts f_s generated by the AOM 107.